



\*\*FILE\*\*ID\*\*FILL

C 14

The diagram illustrates two sets of binary strings, each consisting of 12 strings of length 12. The left set starts with the character 'L' and ends with the character 'L'. The right set starts with the character 'S' and ends with the character 'S'. The strings are arranged in a grid-like pattern, with each string having a unique sequence of 'L's and 'S's.

```
0001 0 XTITLE 'EDT$FILL - fill command'
0002 0 MODULE EDT$FILL (
0003 0     IDENT = 'V04-000'
0004 0     ) =
0005 1 BEGIN
0006 1 ****
0007 1 *
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0026 1 *
0027 1 *
0028 1 ****
0029 1 *
0030 1 *
0031 1 ++
0032 1 FACILITY: EDT -- The DEC Standard Editor
0033 1
0034 1 ABSTRACT:
0035 1
0036 1     This module implements the fill command for line mode
0037 1     or change mode.
0038 1
0039 1 ENVIRONMENT: user mode.
0040 1
0041 1 AUTHOR: Bob Kushlis, CREATION DATE: 11-OCT-1979
0042 1
0043 1 MODIFIED BY:
0044 1
0045 1     2-001 - Regularize headers. JBS 05-Mar-1981
0046 1     2-002 - Improve the appearance of the listing. JBS 14-Jun-1983
0047 1 --
0048 1
```

```
: 50      0049 1 %SBTTL 'Declarations'  
.: 51      0050 1  
.: 52      0051 1 TABLE OF CONTENTS:  
.: 53      0052 1  
.: 54      0053 1  
.: 55      0054 1 REQUIRE 'EDTSRC:TRARCUNAM';  
.: 56      0493 1  
.: 57      0494 1 FORWARD ROUTINE  
.: 58      0495 1     EDT$FILL_TXT;  
.: 59      0496 1  
.: 60      0497 1  
.: 61      0498 1 INCLUDE FILES:  
.: 62      0499 1  
.: 63      0500 1  
.: 64      0501 1 REQUIRE 'EDTSRC:EDTREQ';  
.: 65      0636 1  
.: 66      0637 1  
.: 67      0638 1 MACROS:  
.: 68      0639 1  
.: 69      0640 1     NONE  
.: 70      0641 1  
.: 71      0642 1 EQUATED SYMBOLS:  
.: 72      0643 1  
.: 73      0644 1     NONE  
.: 74      0645 1  
.: 75      0646 1 OWN STORAGE:  
.: 76      0647 1  
.: 77      0648 1     NONE  
.: 78      0649 1  
.: 79      0650 1 EXTERNAL REFERENCES:  
.: 80      0651 1  
.: 81      0652 1     In the routine
```

```
83 0653 1 %SBTTL 'EDTSSFILL_TXT - fill command'
84 0654 1
85 0655 1 GLOBAL ROUTINE EDTSSFILL_TXT (
86 0656 1     NLINES
87 0657 1     ) =
88 0658 1
89 0659 1 !++
90 0660 1 ! FUNCTIONAL DESCRIPTION:
91 0661 1
92 0662 1     Do filling, in both line and change mode.
93 0663 1
94 0664 1 ! FORMAL PARAMETERS:
95 0665 1
96 0666 1     NLINES           The number of lines to fill
97 0667 1
98 0668 1 ! IMPLICIT INPUTS:
99 0669 1
100 0670 1     EDTSSG_WD_WRAP
101 0671 1     EDTSSG_TI_WID
102 0672 1     EDTSSST_LN_BUF
103 0673 1     EDTSSG_LN_LEN
104 0674 1     EDTSSA_WK_LN
105 0675 1
106 0676 1 ! IMPLICIT OUTPUTS:
107 0677 1
108 0678 1     NONE
109 0679 1
110 0680 1 ! ROUTINE VALUE:
111 0681 1
112 0682 1     The number of lines filled.
113 0683 1
114 0684 1 ! SIDE EFFECTS:
115 0685 1
116 0686 1     NONE
117 0687 1
118 0688 1 !--
119 0689 1
120 0690 2 ! BEGIN
121 0691 2
122 0692 2 ! EXTERNAL ROUTINE
123 0693 2     EDTSSFMT_CHWID,
124 0694 2     EDTSSDEL_CURLN,
125 0695 2     EDTSSINS_LN,
126 0696 2     EDTSSSTART_INS,
127 0697 2     EDTSSEND_INS,
128 0698 2     EDTSSRD_NXTLN;
129 0699 2
130 0700 2 ! EXTERNAL
131 0701 2     EDTSSG_WD_WRAP,
132 0702 2     EDTSSG_TI_WID,
133 0703 2     EDTSSST_LN_BUF,
134 0704 2     EDTSSG_LN_LEN,
135 0705 2     EDTSSA_WK_LN : REF LIN_BLOCK;
136 0706 2
137 0707 2
138 0708 2
139 0709 2 ! LABEL
          PUTLINE;
```

```
140      0710 2 LOCAL
141      0711 2     MARGIN,
142      0712 2     COL,
143      0713 2     I,
144      0714 2     LC,
145      0715 2     LP,
146      0716 2     SP,
147      0717 2     REM,
148      0718 2     LEN,
149      0719 2     NL;
150
151      0720 2
152      0721 2 !+ Determine the margin.
153      0722 2 !-
154
155      0723 2
156      0724 2 !+
157      0725 2     IF (.EDTSSG_WD_WRAP NEQ 256) THEN MARGIN = .EDTSSG_WD_WRAP ELSE MARGIN = .EDTSSG_TI_WID - 1;
158
159      0726 2
160      0727 2 !+
161      0728 2     Set the filled line buffer to empty,
162      0729 2     The column number to 0,
163      0730 2     And the count of lines processed to 0.
164
165      0731 2 !-
166      0732 2     LP = CH$PTR (EDTSSST_LN_BUF);
167      0733 2     LC = 0;
168      0734 2     COL = 0;
169      0735 2     I = .EDTSSA_WK_LN [LIN_LENGTH];
170      0736 2     NL = 0;
171
172      0737 2 !+
173      0738 2     Loop until NLINES have been processed.
174
175      0739 2 !-
176      0740 2
177      0741 2     INCR J FROM 1 TO .NLINES DO
178      0742 3     BEGIN
179      0743 3 !+
180      0744 3     Strip trailing blanks and tabs
181      0745 3 !-
182
183      0746 3     LEN = .EDTSSA_WK_LN [LIN_LENGTH];
184      0747 3     SP = CH$PTR (EDTSSA_WK_LN [LIN_TEXT], .LEN);
185
186      0748 3
187      0749 3     WHILE CH$PTR_GTR (.SP, EDTSSA_WK_LN [LIN_TEXT]) DO
188
189      0750 4     BEGIN
190      0751 4     SP = CH$PLUS (.SP, -1);
191
192      0752 4
193      0753 4     IF ((CH$RCHAR (.SP) NEQ %C' ') AND (CH$RCHAR (.SP) NEQ ASC_K_TAB)) THEN EXITLOOP;
194
195      0754 4
196      0755 4     LEN = .LEN - 1;
197
198      0756 3     END;
199
200      0757 3
201      0758 4     IF (.LEN NEQ 0)
202      0759 3     THEN
203      0760 4     BEGIN
204
205      0761 4     INCR I FROM 0 TO .LEN DO
206      0762 4     BEGIN
207
208      0763 5     IF (.I EQL .LEN)
209      0764 5     THEN
210      0765 6
211      0766 5
```

```
197    0767 5      CHSWCHAR (XC' ', .LP)
198    0768 5      ELSE CHSWCHAR (CHSRCHAR (CHSPTR (EDTSSA_WK_LN [LIN_TEXT], .I)), .LP);
199    0769 5
200    0770 5
201    0771 5      COL = .COL + EDT$SFMT_CHWID (CHSRCHAR_A (LP), .COL);
202    0772 5
203    0773 6      IF (.COL GTR .MARGIN)
204    0774 5      THEN
205    0775 5      PUTLINE :
206    0776 6          BEGIN
207    0777 6          !+
208    0778 6          ! Back up to a space.
209    0779 6          !-
210    0780 6          SP = CH$PLUS (.LP, -1);
211    0781 6
212    0782 6          WHILE (CHSRCHAR (.SP) NEQ XC' ') DO
213    0783 6
214    0784 7          IF CHSPTR_EQL (.SP, CHSPTR (EDT$ST_LN_BUF))
215    0785 6          THEN LEAVE PUTLINE
216    0786 6
217    0787 6          ELSE SP = CH$PLUS (.SP, -1);
218    0788 6
219    0789 6
220    0790 6          !+
221    0791 6          ! Insert the new line.
222    0792 6          !-
223    0793 6          EDT$START_INS ();
224    0794 6          EDT$INS_LN (CHSPTR (EDT$ST_LN_BUF), CH$DIFF (.SP, CHSPTR (EDT$ST_LN_BUF)));
225    0795 6          EDT$END_INS ();
226    0796 6          NL = .NL + 1;
227    0797 6          !+
228    0798 6          ! And move the remaining characters to the beginning
229    0799 6          ! of the buffer.
230    0800 6          !-
231    0801 6          SP = CH$PLUS (.SP, 1);
232    0802 6          EDT$CPY_MEM (CH$DIFF (.LP, .SP), .SP, CHSPTR (EDT$ST_LN_BUF));
233    0803 6          COL = 0;
234    0804 6          REM = CH$DIFF (.LP, .SP);
235    0805 6          LP = CHSPTR (EDT$ST_LN_BUF);
236    0806 6
237    0807 6          DECR I FROM .REM - 1 TO 0 DO
238    0808 6          COL = .COL + EDT$SFMT_CHWID (CHSRCHAR_A (LP), .COL);
239    0809 6
240    0810 5          END;
241    0811 5
242    0812 4          END;
243    0813 4
244    0814 4          EDT$DEL_CURLN ();
245    0815 4          END
246    0816 3          ELSE
247    0817 3          !+
248    0818 3          ! Line was blank, break the fill at this point by inserting
249    0819 3          ! whatever remains from the previous line.
250    0820 3          !-
251    0821 4          BEGIN
252    0822 4          !+
253    0823 4          ! Insert the remainder of new line.
```

```

254      0824 4 !-
255      0825 4
256      0826 5     IF CH$PTR_NEQ (.LP, CH$PTR (EDT$ST_LN_BUF))
257      0827 4     THEN
258      0828 5     BEGIN
259      0829 5     EDT$START_INS ();
260      0830 5     EDT$INS_LN (EDT$ST_LN_BUF, CH$DIFF (.LP, CH$PTR (EDT$ST_LN_BUF)));
261      0831 5     EDT$END_INS ();
262      0832 5     NL = .NL + 1;
263      0833 5     LP = CH$PTR (EDT$ST_LN_BUF);
264      0834 5     COL = 0;
265      0835 4     END;
266      0836 4
267      0837 4     EDT$RD_NXTLN ();
268      0838 4     NL = .NL + 1;
269      0839 4     END
270      0840 4
271      0841 2     END;
272      0842 2
273      0843 3     IF CH$PTR_NEQ (.LP, CH$PTR (EDT$ST_LN_BUF))
274      0844 2     THEN
275      0845 3     BEGIN
276      0846 3     EDT$START_INS ();
277      0847 3     EDT$INS_LN (EDT$ST_LN_BUF, CH$DIFF (.LP, CH$PTR (EDT$ST_LN_BUF)));
278      0848 3     EDT$END_INS ();
279      0849 3     NL = .NL + 1;
280      0850 2     END;
281      0851 2
282      0852 2     RETURN (.NL);
283      0853 1     END;

```

! of routine EDT\$FILL\_TXT

```

.TITLE EDT$FILL EDT$FILL - fill command
.IDENT \V04-000\

.EXTRN EDT$FMT_CHWID, EDT$DEL_CURLN
.EXTRN EDT$INS_LN, EDT$START_INS
.EXTRN EDT$END_INS, EDT$RD_NXTLN
.EXTRN EDT$SG_WD_WRAP, EDT$SG_TI_WID
.EXTRN EDT$ST_LN_BUF, EDT$SG_EN[EN]
.EXTRN EDT$SA_WK_LN

.PSECT _EDT$CODE,NOWRT, SHR, PIC,2

        OFFC 00000
00000100    5E 00000000G 10 C2 00002    SUBL2 #16 SP
                    50 00000000G 00 D0 00005    MOVL EDT$SG_WD_WRAP, R0
                    8F 00000000G 50 D1 0000C    CMPL R0, #256
                                         05 13 00013    BEQL 1S
                                         6E 00000000G 50 D0 00015    MOVL R0, MARGIN
                                         00 00000000G 08 11 00018    BRB 2S
                                         6E 00000000G 01 C3 0001A 1$:    SUBL3 #1 EDT$SG_TI_WID MARGIN
                                         56 00000000G 00 9E 00022 2$:    MOVAB ED$ST_LN_BUF, LP
                                         50 00000000G 50 D4 00029    CLRL LC
                                         50 00000000G 00 D0 0002B    MOVL EDT$SA_WK_LN, R0
                                         50 00000000G 60 9A 00032    MOVZBL (R0), I

```

EDTSFILL  
V04-000EDTSFILL - fill command  
EDTSSFILL\_TXT - fill command

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16-Sep-1984 00:22:47  
14-Sep-1984 12:23:06VAX-11 Bliss-32 V4.0-742  
DISK\$VMSMASTER:[EDT.SRC]FILL.BLI;1Page 7  
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		0C	AE	D4	00035	CLRL	NL	: 0736	
		04	AE	7C	00038	CLRQ	COL	: 0734	
		012E	31	00038		BRW	18\$	: 0741	
	50 00000000G	00	DO	0003E	3\$:	MOVL	EDTSSA WK_LN, R0	: 0746	
	5A	60	9A	00045		MOVZBL	(R0), [EN	: 0747	
	58	07	AA40	9E	00048	MOVAB	7(LEN)[R0], SP	: 0749	
	51	07	A0	9E	0004D	MOVAB	7(R0), R1	: 0753	
	51	58	D1	00051		CMPL	SP, R1		
	20	0E	1B	00054		BLEQU	6\$		
		78	91	00056		CMPB	-(SP), #32		
	09	05	13	00059		BEQL	5\$		
		68	91	0005B		CMPB	(SP), #9		
		04	12	0005E		BNEQ	6\$		
		5A	D7	00060	5\$::	DECL	LEN	: 0755	
		E9	11	00062		BRB	4\$	: 0749	
		5A	D5	00064	6\$::	TSTL	LEN	: 0758	
		03	12	00066		BNEQ	7\$		
		00B8	31	00068		BRW	16\$		
	5B	01	CE	0006B	7\$::	MNEGL	#1 I	: 0773	
		00A3	31	0006E		BRW	15\$		
	5A	5B	D1	00071	8\$::	CMPL	I LEN	: 0765	
	66	05	12	00074		BNEQ	9\$		
	66	20	90	00076		MOVAB	#32, (LP)	: 0767	
		0C	11	00079		BRB	10\$	: 0769	
	50 00000000G	00	DO	0007B	9\$::	MOVL	EDTSSA WK_LN, R0		
	66	07	AB40	90	00082	MOVAB	7(I)[R0], -(LP)		
		04	AE	DD	00087	PUSHL	COL	: 0771	
	7E	86	9A	0008A		MOVZBL	(LP)+, -(SP)		
	00	02	FB	0008D		CALLS	#2, EDTSSFMT_CHWID		
	04	AE	50	CO	00094	ADDL2	R0, COL		
	6E	04	AE	D1	00098	CMPL	COL, MARGIN	: 0773	
		76	15	0009C		BLEQ	15\$		
	58	FF	A6	9E	0009E	MOVAB	-1(R6), SP	: 0780	
	20	68	91	000A2	11\$::	CMPB	(SP), #32	: 0782	
		10	13	000A5		BEQL	12\$		
	50 00000000G	00	9E	000A7		MOVAB	EDTSST_LN_BUF, R0	: 0784	
	50	58	D1	000AE		CMPL	SP R0		
		61	13	000B1		BNEQ	15\$		
		58	D7	000B3		DECL	SP	: 0788	
		EB	11	000B5		BRB	11\$	: 0784	
	00000000G	00	FB	000B7	12\$::	CALLS	#0, EDTSSSTART_INS	: 0793	
		50 00000000G	00	9E	000BE	MOVAB	EDTSST_LN_BUF, -R0	: 0794	
	7E	58	50	C3	000C5	SUBL3	R0, SP, -(SP)		
		00000000G	00	9F	000C9	PUSHAB	EDTSST_LN_BUF		
	00000000G	00	02	FB	000CF	CALLS	#2, EDTSSINS_LN		
	00000000G	00	00	FB	000D6	CALLS	#0, EDTSENDS_INS	: 0795	
		OC	AE	D6	000DD	INCL	NL	: 0796	
		58	D6	000EO		INCL	SP	: 0801	
	00000000G	59	58	C3	000E2	SUBL3	SP, LP, R9	: 0802	
	00	68	59	28	000E6	MOVC3	R9, (SP), EDTSST_LN_BUF	: 0803	
		04	AE	D4	000EE	CLRL	COL		
	57	59	D0	000F1		MOVL	R9, REM	: 0804	
	56 00000000G	00	9E	000F4		MOVAB	EDTSST_LN_BUF, LP	: 0805	
	52	57	D0	000FB		MOVL	REM, I	: 0807	
		11	11	000FE		BRB	14\$		
	7E	04	AE	DD	00100	13\$::	PUSHL	COL	: 0808
		86	9A	00103		MOVZBL	(LP)+, -(SP)		

EDTSFILL  
V04-000

EDTSFILL - fill command  
EDT\$SFILL\_TXT - fill command

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16-Sep-1984 00:22:47  
14-Sep-1984 12:23:06

VAX-11 Bliss-32 V4.0-742  
DISK\$VMSMASTER:[EDT.SRC]FILL.BLI;1

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	00000000G 00	02	FB 00106	CALLS	#2, EDT\$SFMT_CHWID	
	04 AE	50	CO 0010D	ADDL2	RO, COL	
	EC	52	F4 00111	14\$: SOBGEQ	I, 13\$	
FF57	5B 01	5A	F1 00114	15\$: ACBL	LÉN, #1 I, 8\$	0762
	00000000G 00	00	FB 0011A	CALLS	#0, EDT\$SDÉL_CURLN	0814
	49 50 00000000G	11	00121	BRB	18\$	0758
	50	56	D1 0012A	MOVAB	EDT\$ST_LN_BUF, RO	0826
	33	13	0012D	CMPL	LP, RO	
	00000000G 00	00	FB 0012F	BEQL	17\$	
	50 00000000G	00	9E 00136	CALLS	#0, EDT\$START_INS	0829
7E	56	50	C3 0013D	MOVAB	EDT\$ST_LN_BUF, -RO	0830
	00000000G 00	00	9F 00141	SUBL3	RO, LP, -(SP)	
	00000000G 00	02	FB 00147	PUSHAB	EDT\$ST_LN_BUF	
	00000000G 00	00	FB 0014E	CALLS	#2, EDT\$INS_LN	0831
	OC	AE	D6 00155	CALLS	#0, EDT\$SEND_INS	0832
	56 00000000G	00	9E 00158	INCL	NL	0833
	04	AE	D4 0015F	MOVAB	EDT\$ST_LN_BUF, LP	0834
	00000000G 00	00	FB 00162	CLRL	COL	0835
	OC	AE	D6 00169	CALLS	#0, EDT\$RD_NXTLN	0836
FECA	08 AE	01	04 AC	INCL	NL	0837
	50 00000000G	00	9E 00174	ACBL	NLINES, #1, J, 3\$	0838
	50	56	D1 0017B	MOVAB	EDT\$ST_LN_BUF, RO	0758
	29	13	0017E	CMPL	LP, RO	0843
	00000000G 00	00	FB 00180	BEQL	19\$	
	50 00000000G	00	9E 00187	CALLS	#0, EDT\$START_INS	0846
7E	56	50	C3 0018E	MOVAB	EDT\$ST_LN_BUF, -RO	0847
	00000000G 00	00	9F 00192	SUBL3	RO, LP, -(SP)	
	00000000G 00	02	FB 00198	PUSHAB	EDT\$ST_LN_BUF	
	OC	AE	D6 001A6	CALLS	#2, EDT\$INS_LN	0848
	50 OC AE	D0	001A9	CALLS	#0, EDT\$SEND_INS	0849
	04 001AD	19\$: MOVL	NL, RO	RET	0852	0853

: Routine Size: 430 bytes, Routine Base: \_EDT\$CODE + 0000

: 284 0854 1  
: 285 0855 1 !<BLF/PAGE>

EDT\$FILL  
V04-000 EDT\$FILL - fill command  
EDT\$\$FILL\_TXT - fill command  
287 0856 1 END  
288 0857 1  
289 0858 0 EL'IDOM

L 14  
16-Sep-1984 00:22:47 14-Sep-1984 12:23:06 VAX-11 Bliss-32 V4.0-742  
DISK\$VMSSMASTER:[EDT.SRC]FILL.BLI;1

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ED  
VO

. of module EDT\$FILL

#### PSECT SUMMARY

Name	Bytes	Attributes
_EDT\$CODE	430	NOVEC,NOWRT, RD , EXE, SHR, LCL, REL, CON, PIC,ALIGN(2)

#### Library Statistics

File	----- Total	Symbols Loaded	----- Percent	Pages Mapped	Processing Time
\$255\$DUA28:[EDT.SRC]EDT.L32;1	377	12	3	40	00:00.2
\$255\$DUA28:[EDT.SRC]PSECTS.L32;1	2	1	50	7	00:00.1

#### COMMAND QUALIFIERS

BLISS/CHECK=(FIELD,INITIAL,OPTIMIZE)/NOTRACEBACK/LIS=LIS\$::FILL/OBJ=OBJ\$::FILL MSRC\$::FILL.BLI/UPDATE=(ENH\$::FILL)

Size: 430 code + 0 data bytes  
Run Time: 00:22.0  
Elapsed Time: 00:26.2  
Lines/CPU Min: 2338  
Lexemes/CPU-Min: 8314  
Memory Used: 139 pages  
Compilation Complete

0133 AH-BT13A-SE  
VAX/VMS V4.0

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EXTEND  
LIS

FDEC  
LIS

FILE  
LIS

FIND PARA  
LIS

FCRLF  
LIS

EDT  
LIS

EXEC  
LIS

EXECNO  
LIS

FILEIO  
LIS

FINDKEY  
LIS

EDTVECTOR  
LIS

FCOLINC  
LIS

FINAL  
LIS

FJOHNDOE  
LIS

DEPKEY  
LIS

ERRMSG  
LIS

ECHAR  
LIS